ANNUAL SITE MANAGEMENT REPORT
FROM APRIL 2013 TO MARCH 2014
METROPOLITAN AVENUE CAMPUS (Q686)
92-34 METROPOLITAN AVENUE
FOREST HILLS, NY
VCP AGREEMENT # V-00500-2

PREPARED FOR:

New York City Department of Education
Office of Environmental Health and Safety
44-36 Vernon Blvd.
Long Island City, New York 11101

PREPARED BY:

104 East 25th Street, 10th Floor
New York, New York 10010-2917

Date of Issue: April 14, 2014

Cardno ATC Project No. 015.19125.1819

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PROJECT DIRECTORY

CLIENT:	New York City Department of Education Office of Environmental Health and Safety 44-36 Vernon Blvd. Long Island City, New York 11101 (718) 361-3808
PROJECT LOCATION:	Metropolitan Avenue Campus (Q686) 92-34 Metropolitan Avenue Forest Hills, New York (718) 275-2593
PROJECT TECHNICAL SUPPORT	New York State Department of Environmental Conservation One Hunters Point Plaza 47-40 21st Street Long Island City, New York 11101 (718) 482-4065 New York City School Construction Authority 30-30 Thomson Avenue Long Island City, New York 11101 (718) 472-8000 TRC Engineers, Inc. 1430 Broadway, 10th Floor New York, NY 10018 (212) 221-7822
DESCRIPTION OF WORK:	Review site management plan; walk-through visual inspection; review Vapor Barrier, Sub-slab Depressurization System and Cover System Logbook; review prior reports.
ATC REPRESENTATIVES:	Gilbert Gedeon, PE, Division Manager Husam Zeidan, Inspector

EXECUTIVE SUMMARY

This Annual Site Management Report (SMR) for Metropolitan Avenue Campus (Q686), located at 92-34 Metropolitan Avenue, Forest Hills, NY covers the period from April 2013 to March 2014. This SMR addresses the requirements of the Site Management Plan (SMP) dated April 2010. The SMR also documents the most recent annual site refresher training and annual site inspection conducted on March 31, 2014 pursuant to the New York State Department of Environmental Conservation (NYSDEC) approved SMP.

The site inspection included an evaluation of engineering controls identified in the SMP, dated April 2010, which includes the vapor barrier, sub-slab depressurization system (SSDS) and cover system established at the site. In addition, Cardno ATC (ATC) reviewed the custodial inspection logs and SSDS biweekly inspection logs prepared by others. ATC observed exterior hairline cracks on the roadway, sidewalk, tennis court and playground. Although these cracks are surficial, ATC advised custodial staff to repair or seal them to prevent further deterioration.

Based on the results of the annual site inspection and document review, ATC concludes that the ECs and ICs remain unchanged, are effective, and protect public health and the environment. See Attachment 1 for the Institutional and Engineering Controls Certification Form.

1.0 INTRODUCTION

On behalf of the NYCDOE Office of Environmental Health and Safety (DOE/EHS), ATC is pleased to provide this SMR to NYSDEC for Q686 located at 92-34 Metropolitan Avenue in Forest Hills, NY. The school opened in September 2010 and is currently attended by approximately 1,800 students. This report was completed in accordance with the SMP approved by the NYSDEC.

The scope of work for this service included:

1. Review of the school custodian's monthly inspection logs indicating his routine walk-through to identify any observed changes to the ECs and ICs;
2. SSDS Inspection, Basement Inspection and Exterior Inspection;
3. Review of SMP, Operations and Maintenance Plan (O&M Plan) and Biweekly Inspection Logs; and
4. Photographic documentation of observations.

This report was developed to document: (a) any changes to the ECs and ICs, and (b) compliance of the maintenance and monitoring program with the requirements of the SMP. Mr. Gilbert Gedeon, P.E. and Mr. Husam Zeidan of ATC conducted the annual site inspection on March 31, 2014. ATC met with and was accompanied by Mr. William Rice, the school's Custodian, and Mr. Eric Jackson, the school's Fireman.

2.0 ENGINEERING CONTROLS

The Metropolitan Avenue Campus contains engineering controls that include a Gas Vapor Barrier, installed below the basement floor slab and along the exterior of subsurface basement walls, and an SSDS constructed beneath the concrete floor slab of the school to prevent vapor intrusion. In addition, a Composite Surface Cover System consisting of asphalt, concrete, pavers, synthetic turf, rubber play surface and environmentally clean soil cover was constructed to act as a barrier to direct contact with subsurface soils. A maintenance and monitoring program was developed to ensure that the ECs remain effective for the life of the building.

2.1 Vapor Barrier

The 60-mil fluid applied gas vapor barrier was installed beneath the school as a preventative measure to prevent soil vapors from entering the school building in the future. The vapor barrier is applied underneath the basement floor slab and the exterior of the subsurface portions of the building's walls.

2.2 Sub-Slab Depressurization System

An SSDS was also installed beneath the new school as an added safeguard to prevent soil gas vapors from entering the school building in the future. The primary components of the SSDS are

slotted schedule 80 PVC piping located beneath the basement floor slab and extending to the blower unit in the southern portion of the property.

2.3 Composite Cover System

A composite cover system was also installed on the school property to prevent school occupants from exposure to the underlying soils. This composite cover system is comprised of asphalt covered roads, concrete covered sidewalks, a resilient track surface, artificial turf, rubber surfacing, environmentally clean fill landscaped areas, and concrete building slabs.

3.0 INSTITUTIONAL CONTROLS

The ICs at the Site state that the owner of the Property shall:

- Comply with the Declarations of Covenants and Restrictions (DCR) and comply with all elements of the SMP;
- Operate and maintain all ECs as per the SMP;
- Inspect, maintain, and certify the integrity of the cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, artificial turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas and a concrete building floor slab as required by the SMP;
- Operate, inspect, maintain, and certify the soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures as required in the SMP;
- Inspect and certify all ECs at a frequency as defined in the SMP;
- Report data and information relevant to Site Management for the Property at the frequency and as defined in the SMP;
- Protect and replace groundwater monitoring wells as necessary to ensure the devices function in the manner specified in the SMP. [1]
- Refrain from discontinuing the ECs without an amendment or the extinguishment of the DCR;
- Prohibit farming and vegetable gardens on the Property;
- Prohibit the use of groundwater underlying the Property unless treatment is used rendering it safe for its intended purpose;
- Prohibit all future activities on the Property that will disturb underlying native soils unless conducted as defined in the soil management provisions of the SMP;
- Use the Property as a school campus or other commercial use provided all long-term ECs and ICs included in the SMP are employed;
- Prohibit the Property from being used for purposes other than a school without an amendment or the extinguishment of the DCR approved in writing by the NYSDEC; and
- Agree to submit to NYSDEC a written statement that certifies that: (1) controls employed at the Property are unchanged from the previous certification or that any changes to the

[1] NYSDEC approved the decommissioning of the groundwater monitoring wells on 5/1/13, and this work was completed on 5/31/13. The three (3) monitoring wells were decommissioned in accordance with NYSDEC Commissioner Policy 43 (CP-43).

controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or at an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

4.0 SITE INSPECTIONS AND SSDS REPAIRS

4.1 Document Review

4.1.1 Review of Custodian's Inspection Logs

ATC reviewed the daily inspection logs and monthly inspection forms with the custodial staff from April 2013 to March 2014. Several monthly forms indicate hairline cracks and other minor deterioration on the exterior. ATC advised the custodial staff to continue to complete the Monthly Inspection Forms on a monthly basis and immediately after a severe condition, and to repair the hairline cracks. The Monthly Inspection Forms completed by the custodial staff are included in Attachment 2. As part of the annual inspection, ATC provided refresher training. The training acknowledgement letters are included in Attachment 6.

4.1.2 Review of Biweekly Inspection Logs

ATC reviewed the biweekly logs prepared by TRC Engineers, Inc. (TRC) from March 5, 2013 to September 3, 2013. The biweekly inspections were performed by TRC at the request of the New York City School Construction Authority (SCA) to verify the SSDS operation until the Building Management System (BMS) is fully commissioned. These reports present the activity performed by TRC during their inspections of the SSDS (See Attachment 3). ATC noted that the SSDS fan unit was operating at the time of the inspections.

In October 2013, DOE Division of School Facilities (DSF) took over SSDS inspections and by December 4, 2013, the BMS was accurately monitoring the status of the fan.

4.2 ATC's Visual Observations

On March 31, 2014, ATC conducted visual observations and photographic documentation while accompanied by the custodial staff. Site photographs are included in Attachment 4 and the Annual Inspection Form is included in Attachment 5. During the inspection, ATC noted the following:

- BMS has been fully commissioned; and
- A spare fan unit is available at the school.

4.2.1 SSDS Inspection

1. The SSDS fan unit and indicator lights were operational;
2. Rust or other debris in the vicinity of the post, sleeve and discharge cap at the SSDS stack vent were not observed;
3. Rust or other debris in the vicinity of the inline filter was not observed; and
4. All gauges were observed to be functioning.

4.2.2 Basement Inspection

ATC inspected the accessible areas of the basement floors and walls. ATC did not observe any visible concrete cracks penetrating into the basement floor during the annual inspection. ATC also inspected the elevator pits and cracks were not observed. ATC's observation of the basement concrete floors was limited due to architectural finishes such as ceramic floor tiles, vinyl floor tiles, wood flooring and miscellaneous equipment and furniture.

4.2.3 Exterior Inspection

ATC inspected the composite cover system around the perimeter of the property including the paved and unpaved areas. ATC observed hairline cracks on the roadway, sidewalk, tennis court and playground; however these cracks do not compromise the cover system. ATC advised the custodial staff to repair or seal the hairline cracks to original condition to prevent further deterioration. There was no evidence of pavement removal. No structures have been constructed on the unpaved areas. There were no signs of soil washing or erosion. There were no signs of intrusive activities such as drilling, digging, trenching, grading or excavating. ATC also inspected the artificial turf and observed no apparent holes, cracks or deterioration. All exterior cover systems were intact.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on visual observations, ATC concludes the following:

1. The BMS has been fully commissioned;
2. The SSDS fan unit is operational;
3. No visible concrete cracks penetrating into the basement floors or walls were observed during the annual inspection;
4. Exterior hairline cracks were observed on the roadways, sidewalks, tennis court and playground;
5. The ICs and ECs are in place and remain effective;
6. The O&M Plan is being implemented;
7. No changes have occurred that would reduce the ability of the controls to protect public health and the environment; and
8. Access is available to the Site by NYSDEC and NYSDOH to evaluate continued maintenance of such controls.

Based on document review and visual observations, ATC recommends the following:

1. Continue documenting all operation and maintenance activities on ECs;
2. Conduct preventative maintenance and document accordingly;
3. Repair or seal the exterior hairline cracks to prevent further deterioration; and
4. Monthly and Severe Condition inspections should be conducted and inspection logs should be completed by the custodial staff.

6.0 STANDARDS OF CARE

ATC's work was performed in a professional manner with the best interest of our client in mind. Our objective was to perform our work with care, exercising the customary skills and competence of consulting professionals in the relevant disciplines. The conclusions presented in this report are professional opinions based upon visual observations and site documents review. The conclusions expressed in this report reflect only the limited inspections of specific locations. The opinions and recommendations presented herein apply to site conditions existing at the time of our observations. ATC cannot act as insurers, and no expressed or implied representation or warrant is included or intended in our report except that our work was performed, within the limits prescribed by our clients, with the customary thoroughness and competence of our profession at the time and place the services were rendered.

It is our pleasure to provide our consultative services to the NYCDOE. If you have any questions about this report, please call (212) 353-8280.

Sincerely,
CARDNO ATC

Gilbert Gedeon, P.E.
Division Manager

cc: B. Orlan
Y. Efstathiou
H. Zeidan

Attachment 1
Institutional and Engineering Controls Certification Form

New York State Department of Environmental Conservation
Division of Environmental Remediation, 11th Floor
625 Broadway, Albany, New York 12233
Phone: (518) 402-9553 **Fax:** (518) 402-9577
Website: www.dec.ny.gov

Joe Martens
Commissioner

2/11/2014

Barrie Orlan
Director
NYC DOE - Division of Scholl Facilities
44-36 Vernon Blvd.
Lic, NY 11101

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Metropolitan Avenue Site
Site No.: V00500
Site Address: 87-01 69th Avenue & 92-34 Metropolitan Avenue
Forest Hills, NY 11375

Dear Barrie Orlan:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **March 27, 2014**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Ioana Munteanu-Ramnic, Project Manager, at the following address:

New York State Department of Environmental Conservation
One Hunters Point Plaza
47-40 21st Street
Long Island City, NY 11101

Phone number: 718-482-4065. E-mail: ixmuntea@gw.dec.state.ny.us

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

cc: w/ enclosures
City of New York, SCA

ec: w/ enclosures
Ioana Munteanu-Ramnic, Project Manager
Jane O'Connell, Hazardous Waste Remediation Engineer, Region 2

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered; as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **V00500**

Site Name Metropolitan Avenue Site

Site Address: 87-01 69th Avenue & 92-34 Metropolitan Avenue Zip Code: 11375
City/Town: Forest Hills
County: Queens
Site Acreage: 7.9

Reporting Period: February 18, 2013 to February 18, 2014
April 2013 to March 2014

	YES	NO
1. Is the information above correct?	☐	☑
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

SITE NO. V00500 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
3886-800	City of New York, SCA	Ground Water Use Restriction Soil Management Plan Landuse Restriction Building Use Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

2.2 ENGINEERING CONTROL COMPONENTS
2.2.1 Engineering Control Systems
2.2.1.1 Composite Cover System
The composite cover system is a required engineering control of the SMP. Installation of a composite cover system at the Site will prevent exposure to subsurface native soils.
The composite cover system will be comprised of asphalt-covered roads, concrete-covered sidewalks, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab. In addition, recreational areas will be constructed which will consist of a resilient track surface, synthetic turf, and rubber surfacing. Figure 11 shows the location of each of the principal cover types to be built at the Site. Details of the principal cover types are provided in Figure 11A. A Soil Management Plan is included in Appendix F of the SMP, and outlines the procedures required in the event the composite cover system is disturbed. The Soil Management Plan is also discussed in
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detail in Section 2.3.2 of the SMP. Issues related to maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.
2.2.1.2 Vapor Barrier
A 60 mil vapor barrier will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The fluid applied vapor barrier will consist of Liquid Boot® or an approved NYCSCA equivalent which will be installed above the gravel layer containing the SSDS. Specifications and drawings regarding the installation of the vapor barrier are included in Appendix G of this SMP.
2.2.1.3 Sub Slab Depressurization System (SSDS)
A SSDS will also be installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDOH, that the system can be converted to the passive mode. Specifications and drawings regarding the installation of the SSDS are included as Appendix H of this SMP.
Procedures for operating and maintaining the SSDS system are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, has occurred.
2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems
2.2.2.1 Vapor Barrier
The vapor barrier is a permanent control which will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier will be placed above the gravel layer containing the SSDS. There is no monitoring or maintenance associated with the vapor barrier.
2.2.2.2 Sub Slab Depressurization System (SSDS)
An active SSDS system will also be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school
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building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of

the NYSDEC and the NYSDOH, that the system can be converted to the passive mode. The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. Systems will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

2.2.2.3 Composite Cover System

The composite cover system is also a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.4 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDOH and NYSDEC, until residual groundwater concentrations are found to be below NYSDEC standards or to verify continued asymptotic conditions over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. Monitoring activities are outlined in the Monitoring Plan of the SMP.

2.3 INSTITUTIONAL CONTROLS COMPONENTS

2.3.1 Institutional Controls

A series of Institutional Controls are required under the SMP to: (1) implement, maintain and monitor Engineering Control systems and (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface contamination. Adherence to these Institutional Controls on the Site (Controlled Property) is required under the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

. Compliance with the Environmental Easement by the Grantor and the Grantor's successors and assigns with all elements of this SMP;

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. All Engineering Controls must be operated and maintained as specified in this SMP;

. A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, synthetic turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab must be inspected, certified and maintained as required in this SMP;

. A soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures must be inspected, certified, operated and maintained as required in this SMP;

. All Engineering Controls on the Site must be inspected and certified at a frequency and in a manner defined in the SMP;

. Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;

. Groundwater and soil vapor monitoring must be performed as defined in this SMP;

. Groundwater monitor wells and soil vapor monitoring points must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP, and;

. Engineering Controls may not be discontinued without an amendment or the extinguishment of this Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Site are:

. Vegetable gardens and farming on the Site are prohibited;

. The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

. All future activities on the Site that will disturb underlying soils are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;

. The Site may only be used for a school campus provided that the long-term Engineering and Institutional Controls included in this SMP are employed;

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. The Site may not be used for purposes other than a school without an amendment or the extinguishment of this Environmental Easement approved in writing by the NYSDEC, and;

. Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the

controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

3886-830 City of New York, SCA

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Building Use Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

2.2 ENGINEERING CONTROL COMPONENTS

2.2.1 Engineering Control Systems

2.2.1.1 Composite Cover System

The composite cover system is a required engineering control of the SMP. Installation of a composite cover system at the Site will prevent exposure to subsurface native soils.

The composite cover system will be comprised of asphalt-covered roads, concrete-covered sidewalks, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab. In addition, recreational areas will be constructed which will consist of a resilient track surface, synthetic turf, and rubber surfacing. Figure 11 shows the location of each of the principal cover types to be built at the Site. Details of the principal cover types are provided in Figure 11A. A Soil Management Plan is included in Appendix F of the SMP, and outlines the procedures required in the event the composite cover system is disturbed. The Soil Management Plan is also discussed in

detail in Section 2.3.2 of the SMP. Issues related to maintenance of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

2.2.1.2 Vapor Barrier

A 60 mil vapor barrier will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The fluid applied vapor barrier will consist of Liquid Boot® or an approved NYCSCA equivalent which will be installed above the gravel layer containing the SSDS. Specifications and drawings regarding the installation of the vapor barrier are included in Appendix G of this SMP.

2.2.1.3 Sub Slab Depressurization System (SSDS)

A SSDS will also be installed beneath the school as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The SSDS will be installed beneath the vapor barrier and will be operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDOH, that the system can be converted to the passive mode. Specifications and drawings regarding the installation of the SSDS are included as Appendix H of this SMP.

Procedures for operating and maintaining the SSDS system are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, has occurred.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

2.2.2.1 Vapor Barrier

The vapor barrier is a permanent control which will be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school building in the future. The vapor barrier will be placed above the gravel layer containing the SSDS. There is no monitoring or maintenance associated with the vapor barrier.

2.2.2.2 Sub Slab Depressurization System (SSDS)

An active SSDS system will also be installed beneath the school building as an added precaution to prevent any residual soil gas vapors from entering the school

building in the future. The SSDS will be installed beneath the vapor barrier and will be

operated in an active mode until such time as it can be demonstrated to the satisfaction of the NYSDEC and the NYSDOH, that the system can be converted to the passive mode. The active SSDS will not be discontinued without written approval by NYSDEC and NYSDOH. A proposal to discontinue the active SSDS may be submitted by the property owner based on confirmatory data that justifies such request. Systems will remain in place and operational until permission to discontinue use is granted in writing by NYSDEC and NYSDOH.

2.2.2.3 Composite Cover System

The composite cover system is also a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.2.2.4 Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by NYSDOH and NYSDEC, until residual groundwater concentrations are found to be below NYSDEC standards or to verify continued asymptotic conditions over an extended period. Monitoring will continue until permission to discontinue is granted in writing by NYSDEC and NYSDOH. Monitoring activities are outlined in the Monitoring Plan of the SMP.

2.3 INSTITUTIONAL CONTROLS COMPONENTS

2.3.1 Institutional Controls

A series of Institutional Controls are required under the SMP to: (1) implement, maintain and monitor Engineering Control systems and (2) prevent future exposure to residual contamination by controlling disturbances of the subsurface contamination. Adherence to these Institutional Controls on the Site (Controlled Property) is required under the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

. Compliance with the Environmental Easement by the Grantor and the Grantor's successors and assigns with all elements of this SMP;

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. All Engineering Controls must be operated and maintained as specified in this SMP;

. A composite cover system consisting of asphalt covered roads, concrete covered sidewalks, a resilient track surface, synthetic turf, rubber surfacing, two feet of environmentally clean fill at landscaped areas, and a concrete building floor slab must be inspected, certified and maintained as required in this SMP;

. A soil vapor mitigation system consisting of a vapor barrier and an active SSDS under all enclosed building structures must be inspected, certified, operated and maintained as required in this SMP;

. All Engineering Controls on the Site must be inspected and certified at a frequency and in a manner defined in the SMP;

. Data and information pertinent to Site Management for the Site must be reported at the frequency and in a manner defined in this SMP;

. Groundwater and soil vapor monitoring must be performed as defined in this SMP;

. Groundwater monitor wells and soil vapor monitoring points must be protected and replaced as necessary to ensure the devices function in the manner specified in this SMP, and;

. Engineering Controls may not be discontinued without an amendment or the extinguishment of this Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Site are:

. Vegetable gardens and farming on the Site are prohibited;

. The use of the groundwater underlying the Site is prohibited without treatment rendering it safe for intended purpose;

. All future activities on the Site that will disturb underlying soils are prohibited unless they are conducted in accordance with the soil management provisions in this SMP;

. The Site may only be used for a school campus provided that the long-term Engineering and Institutional Controls included in this SMP are employed;

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. The Site may not be used for purposes other than a school without an amendment or the extinguishment of this Environmental Easement approved in writing by the NYSDEC, and;

. Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by

the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Site at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
3886-800	Vapor Mitigation Cover System Subsurface Barriers
3886-830	Vapor Mitigation Cover System Subsurface Barriers

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative — Date

IC CERTIFICATIONS
SITE NO. V00500

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I BERNARD P. ORLAN at 44-36 Vernon Blvd, LIC, N.Y. 11101.
print name print business address

am certifying as OWNER (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Bernard P Orlan 4/11/14
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gilbert Gedeon at 104 E 25th St, Manhattan, NY 10010
print name print business address

am certifying as a Professional Engineer for the New York City Dept. of Education
(Owner or Remedial Party)

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

4/14/14
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met.
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Attachment 2
Custodian Monthly or Severe Condition Inspection Forms

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 4-13-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	NO	
	* Any visible cracks in the basement wall?	NO	
	* Any other visible openings (unintended) in either the floor or walls?	NO	
	* Draw approximate location of floor cracks/openings on site map.	N/A	
	* Any construction activities in basement affecting basement floor/ walls?	NO	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	NO	
	* Is the rain cap missing on the Vent Stack?	NO	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	NO	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	NO	
	* Has there been any removal of any pavement?	NO	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	NO	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	NO	
	* Have any structures been constructed on the unpaved areas?	NO	
	* Are there any signs of intrusive activities?	NO	

D. ACTIONS TAKEN

Small cracks around Building

Inspector's Signature: Eric Jackson

* Any 'Yes' answers require immediate notification of Bernard Orlan, DSF, at 718-361-3808.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 3-18-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	N/A	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.	N/A	
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and Inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	
D. ACTIONS TAKEN	Minor Cracks around Building Curve is separating by loading dock (Right side Curve is Crack By Drainage (Rear side		

Inspector's Signature: [signature]

* Any 'Yes' answers require immediate notification of Bernard Orlan, DSF, at 718-361-3808.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 6-5-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	N/A	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Minor Cracks around Building
Curve is separating by loading dock (Right side
Curve is crack by the down (Red side)
Main entrance on right side wall is broken underneath the Gate
light pole by main entrance is sinking
Water is steading on field by Tennis court (Red side

Inspector's Signature:

* Any 'Yes' answers require immediate notification of Bernard Orlan, DSF, at 718-361-3808.
If no follow up inspection by DSF within 1 week of notification, re-inspection and re-notification required.

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 7-14-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Main entrance on right side wall is broken underneath the Gate
Minor cracks around Building
Curve is separating by loading dock (Right side
Curve is crack by drain (Red side)
Right pole by Main entrance is Stinking

Inspector's Signature: Eric Jackson

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 8-10-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	NO	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	
D. ACTIONS TAKEN	Main entrance on right side wall is broken underneath Gate Minor cracks around Building Canoe is operating by loading dock (Right side Groove crack by door on Red Right pole by Main entrance is sanking in		

Inspector's Signature: [signature]

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 5-8-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	N/A	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	
D. ACTIONS TAKEN	Main entrance on right side wall is broken underneath Gate Minor Cracks around Building. Curve is spalling by loading dock (Right side) Crack by drain on Red side Light pole by Main entrance is sinking in **Inspector's Signature:**		

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 10-13-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	No	
	* Have any structures been constructed on the unpaved areas?	No	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Main entrance on right side wall is broken underneath Gate
Minor cracks around Building
Crawler is separating by loading dock (Right side)
Crawler crack by drain on Red side
Light pole by Main entrance is shrinking in

Inspector's Signature: [signature]

Track has a sink hole starting by Tennis court call ATC and told them about the hole

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 11-3-13

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	NO	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	Yes	
	* Have any structures been constructed on the unpaved areas?	~~Yes~~ No EJ	
	* Are there any signs of intrusive activities?	No	

D. ACTIONS TAKEN

Main entrance on right sidewalk is broken underneath Gate
Minor Cracks around Building
Crawl is operating by loading dock (Right side)
Crawl crack by drain on Red side
Light pole by Main entrance is sinking in

Inspector's Signature: Eric Jackson

Track has a sink hole starting by Tennis court
Call ATC and told them about hole

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 12-19-18

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	NO	
	* Draw approximate location of floor cracks/openings on site map.	NO	
	* Any construction activities in basement affecting basement floor/ walls?	NO	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	NO	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	NO	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	NO	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	Yes	
	* Have any structures been constructed on the unpaved areas?	~~Yes~~ NO EJ	
	* Are there any signs of intrusive activities?	NO	
D. ACTIONS TAKEN	Main entrance on right sidewalk is broken underneath Gate Minor Cracks around Building Crack is spreading by loading dock (Right side) Crack by drain on Red side light pole by Main entrance is sinking in **Inspector's Signature:** Eric Jackson		

Track has a sink hole starting by the tennis court, call ATC and told them about the sink hole

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 1-12-14

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	NO	
	* Any visible cracks in the basement wall?	NO	
	* Any other visible openings (unintended) in either the floor or walls?	NO	
	* Draw approximate location of floor cracks/openings on site map.	NO	
	* Any construction activities in basement affecting basement floor/ walls?	NO	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	NO	
	* Is the rain cap missing on the Vent Stack?	NO	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	NO	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	NO	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	NO	
	* Has there been any removal of any pavement?	NO	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	NO	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	Yes	
	* Have any structures been constructed on the unpaved areas?	~~Yes~~ NO EJ	
	* Are there any signs of intrusive activities?	NO	
D. ACTIONS TAKEN	Main entrance on right side walk is broken underneath Gate Minor Cracks around building Crave is operating by loading dock (right side) Crave crack by drain in Red grid Light pole by Main entrance is sinking in **Inspector's Signature:** Eric Jackson		

The track has a sink hole by the tennis court. Call ATC and tell them about the hole

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 2-2-14

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	No	
	* Any visible cracks in the basement wall?	No	
	* Any other visible openings (unintended) in either the floor or walls?	No	
	* Draw approximate location of floor cracks/openings on site map.	No	
	* Any construction activities in basement affecting basement floor/ walls?	No	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	No	
	* Is the rain cap missing on the Vent Stack?	No	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	No	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	No	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	No	
	* Has there been any removal of any pavement?	No	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	No	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	Yes	
	* Have any structures been constructed on the unpaved areas?	~~Yes~~ No EJ	
	* Are there any signs of intrusive activities?	No	
D. ACTIONS TAKEN	Main entrance on right sidewalk is broken underneath Gate Minor cracks around Buildings Grate is sinking by loading dock (Right side) Grate crack by drain on Red side Light pole by Main entrance is sinking in **Inspector's Signature:**		

1) The track has a sink hole by tennis court call ATC
2) By the field on the blue side the sweage Grate is sinking in also there a crack about 60' from the Grate though the speed hump

Custodial Engineer Monthly or Severe Condition Inspection Form

Vapor Barrier and SSDS

Inspector's Name: Eric Jackson

Inspection Date/Time: 3-15-14

Purpose: (circle one) **Monthly Inspection** **Severe Condition Inspection**

		Yes / No*	Notified Person / Date
A. VAPOR BARRIER INSPECTION	**1. Walk the entire basement floor**	Y	
	* Any visible cracks in the basement floor?	NO	
	* Any visible cracks in the basement wall?	NO	
	* Any other visible openings (unintended) in either the floor or walls?	NO	
	* Draw approximate location of floor cracks/openings on site map.	NO	
	* Any construction activities in basement affecting basement floor/ walls?	NO	
	** Notification of DSF is required if cracks are noted. Include the following information: - Draw approximate location of floor and/or wall cracks/openings on site map. - Note the length of the crack/opening. Note the width of the crack/opening.		
B. SSDS INSPECTION	**1. Inspect the SSDS Blower Enclosure.**	Y	
	* Any rust or other debris (bird nest, etc.) in or on SSDS Vent Stack?	NO	
	* Is the rain cap missing on the Vent Stack?	NO	
	* Is the SSDS blower unit functioning at a lower air flow than previously observed?	NO	
	* Is the spare blower unit stored in the designated secure location in the school?	Y	
	* Can you rotate the blower wheel of the spare unit to verify it is properly lubricated?	Y	
	* Does the Building Management System (BMS) indicate any SSDS failure?	NO	
C. EXTERIOR INSPECTION	**1. Walk and inspect the entire exterior property.**	Y	
	* Are there any significant cracks or deterioration of the paved areas?	NO	
	* Has there been any removal of any pavement?	NO	
	* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)?	NO	
	* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)?	Y	
	* Have any structures been constructed on the unpaved areas?	NO YES	
	* Are there any signs of intrusive activities?	NO	
D. ACTIONS TAKEN	Main entrance on right sidewalk is broken underneath Gate Minor Cracks around Building Crane is operating by loading dock (night Crane crack by drains on Red side Light pole by Main Entrance is sinking in **Inspector's Signature:**		

1) The tracks has a sinkhole by the Team's Court Call ATC
2) By the Field on the blue side the Swage Gate is sinking in also there are alot of cracks around the Building

Attachment 3
Biweekly Inspection Logs

1430 Broadway
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April 9, 2014

Ms. Lee Guterman, Deputy Director
Industrial & Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, New York 11101

Re: SSDS Certification
Metropolitan Avenue Campus – Q686
91-30 Metropolitan Avenue
Queens, New York
SCA LLW# 012545, Job# 39578

Dear Ms. Guterman:

In connection with the Metropolitan Avenue Campus located at 91-30 Metropolitan Avenue, Queens, New York, please accept this letter as certification that TRC Engineers, Inc. (TRC) performed biweekly inspections of the sub-slab depressurization system (SSDS) between March 5, 2013 and September 3, 2013 on behalf of the New York City School Construction Authority, in accordance with the New York State Department of Environmental Conservation-approved April 2010 Site Management Plan. The SSDS fan was operating normally during each TRC inspection completed during the time period.

Sincerely,
TRC Engineers, Inc.

Jennifer DiPilato, P.E.
NYS Professional Engineer License No. 085404-1

Under New York State Education Law Article 145 (Engineering), Section 7209 (2), it is a violation of this law for any person, unless acting under the direction of a Licensed Professional Engineer, to alter this document.

Attachment A – TRC SSDS Inspection Reports (3/5/13 through 9/3/13)

ATTACHMENT A
TRC SSDS INSPECTION REPORTS
(3/5/13 through 9/3/13)

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FIELD ACTIVITY DAILY LOG

Date: 03/05/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure gauge installed near the suction fan inlet reads as follows:

  SSDS – 1: Approximately 14.5 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

1. The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.

2. The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.

3. The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.

4. Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 03/18/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 14.5 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

1. The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
2. The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
3. The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
4. Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 04/01/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 13.5 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

1. The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
2. The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
3. The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
4. Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 04/15/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 12.5 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 05/03/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 05/17/2013

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not functional with SSDS fan.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 05/30/2013

Author: Phillip Castellano

Attendees: None

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 10.5 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 06/14/2013

Author: Sanjay Sharma

Attendees: None

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 06/26/2013

Author: Phillip Castellano

Attendees: None

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 07/09/2013

Author: Sanjay Sharma

Attendees: None

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.
- The Building Management System (BMS) is functional but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 07/23/2013

Author: Sanjay Sharma

Attendees: Custodian

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 08/09/2013

Author: Sanjay Sharma

Attendees: Custodian

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 11.0 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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FIELD ACTIVITY DAILY LOG

Date: 08/22/2013

Author: Sanjay Sharma

Attendees: None

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 5.0 inches water column vacuum.
- The Building Management System (BMS) is up but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

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10th Floor
New York, NY 10018

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FIELD ACTIVITY DAILY LOG

Date: 09/03/2013

Author: Sanjay Sharma

Attendees: Erik (Custodial Staff)

Project Name: Metropolitan High School
LLW #: 012545
Job #: 39578
TRC Project #: 192199

Field Activity Subject: Sub-Slab Depressurization System (SSDS) Bi-Weekly Inspection

Description of Daily Activities and Events:

- TRC on-site.
- Checked in with front desk and custodian's office to sign in.
- TRC inspected the SSDS suction fan and determined that it was operating.
- The pressure (as read at the pressure gauge installed at the at the fan inlet) was approximately 5.0 inches water column vacuum.
- The Building Management System (BMS) is functional but at the time of inspection it was not registering a change in status of the SSDS.

See below for a summary of Bulletin work completed and work remaining.

- The Contractor has installed the specified pressure switch and provided a connection to the SSDS piping. However the S.S. tubing used to connect the pressure switch to the SSDS piping must be ¼" O.D. as specified in the Bulletin.
- The pressure switch must be connected to the Building Management System (BMS). As stated in Bulletin No. 66, the Contractor must wire the pressure switch to alarm at the BMS on a low vacuum condition.
- The Contractor must install a nameplate reading "Sub-Slab Depressurization System" to the unit. All reference to "SVE" must be removed.
- Remove the non-functioning magnehelic gauge on the effluent side of the blower, as shown on Drawing SK-1.

Attachment 4
Photographic Documentation

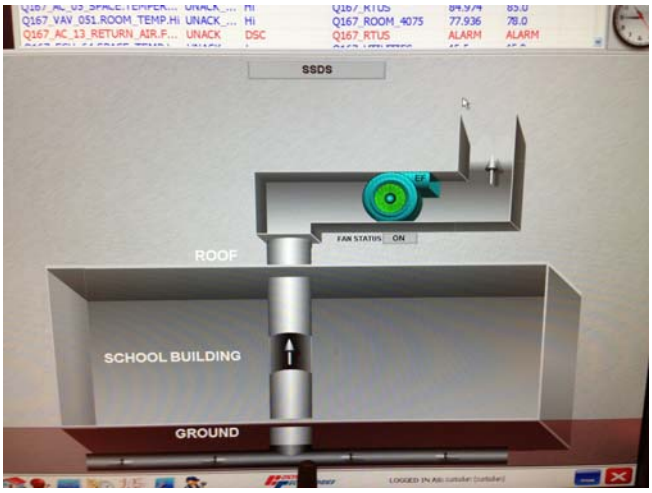

Photo 1: View of the BMS indicating SSDS operation.

Photo 2: View of typical bare concrete floor in Room 0005.

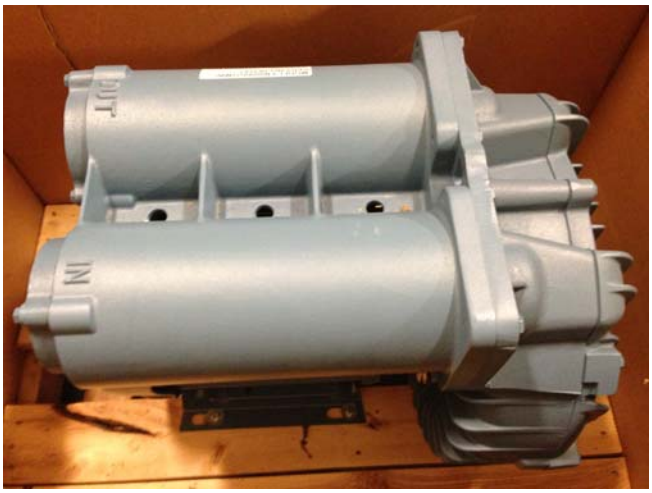

Photo 3: View of spare SSDS fan motor in Room 0005.

Photo 4: View of SSDS vacuum gage.

Photo 5: View of elevator pit.

Photo 6: View of typical concrete sidewalk, vegetation cover, and roadway.

Attachment 5
Annual Inspection Form

Annual Inspection Form

Metropolitan Avneue - 167Q

Inspector's Name: Gilbert Gedeon
Inspection Date: 3/31/14
Inspection Time: 10 AM
Comments:

Weather Conditions: Cloudy
Air Temperature (°F): 40° F

A. PRE INSPECTION CHECKLIST

* Schedule Annual Inspection when school is not occupied by students. ✓
* Review 12 Previous Monthly Inspection Checklists. ✓
* Meet with Custodian and Principal to solicit comments/concerns regarding the operation of the Engineering Controls over the last 12 months. ✓
* Conduct Annual Refresher Training with DOE EHS. ✓
* Comments:

B. SSDS SYSTEM INSPECTION - Inspect Interior and Exterior of Blower Enclosure

* Any rust or other debris in the vicinity of the post, sleeve and discharge cap at the SSDS stack vent? No
* Any rust or other debris in the vicinity of the inline filter/bird screen? No
* Is the SSDS blower unit functioning properly and is the spare blower unit available? Yes, Room 0005
* Is the inline filter differential pressure guage functioning properly? Yes
* Is the blower inlet vacuum indicator functioning properly? Yes
* Are the blower outlet pressure guage and temperature guage functioning properly? Yes
* Is the discharge flow element functioning properly? Yes
* Is the dilution air intake functioning properly? Yes
* Are the indicator lights on the BMS panel functioning properly? Yes
* Comments (see or hear anything unusual?):

C. BASEMENT INSPECTION - Walk Entire Basement Floor

* Review all cracks or other openings indentified in ground floors during previous inspections. ✓
* Any new visible cracks in the basement floor? No
* Any new visible cracks in the basement walls? No
* Any new visible opening (unintended) in either the floor or walls? No
* Any new visible cracks in elevator pit or other accessible pits? No
* Note the length of any new cracks/openings in the basement floor. N/A
* Note the length of any new cracks/openings in the basement walls. N/A
* Draw approximate location of floor cracks/openings that appear to have potential leak through vapor barrier. N/A

Comments:

D. EXTERIOR INSPECTION - Walk Entire Exterior Property

* Are there any significant cracks or deterioration of the paved areas? NO, minor cracks
* Has there been any removal of any pavement? NO
* Is there any soil washing or erosion (gullies, soil washed out onto the pavement)? No
* Has there been any vehicular use on the unpaved areas (tire tracks, rutting)? No
* Have any structures been constructed on the unpaved areas? No
* Are there any signs of intrusive activities? No

Comments:

D. Repair

Summarize needed/completed repairs to Engineering Controls: Seal/repair minor exterior cracks to prevent further deterioration.

Inspector's Signature: [signature]

Attachment 6
Training Acknowledgement

Cardno ATC
Shaping the Future

104 East 25th St, 10th Floor
New York, NY 10010-2917
www.cardnoatc.com
212-353-8280
Fax 212-353-8306

Annual Training Acknowledgement
Engineering Controls Operation and Maintenance

Location: Q686

Custodian/Fireman: Eric Jackson

I, Eric Jackson, received annual refresher training on Engineering Controls Operation and Maintenance by Cardno ATC on 3/31/14. As part of the annual refresher training I conducted a walkthrough with Cardno ATC during which all elements covered by the Operation and Maintenance Plan were explained to me including the completion of the daily logs and monthly inspection form.

Signed by: _____ **Date:** 3/31/14
Custodian/Fireman

Recommendations:

- Exterior hairline cracks (including (roadway, sidewalk, tennis court & playground) should be repaired or sealed to restore original condition. These cracks appear to be surface, but should be addressed to prevent further deterioration.